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STAFF REPORT AND RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	**CD-046-01**
Staff:	JRR-SF
File Date:	05/09/2001
60th Day:	07/08/2001
75th Day:	07/23/2001
Commission Meeting:	7/12/2001

FEDERAL AGENCY: U.S. AIR FORCE

DEVELOPMENT LOCATION: Vandenberg Air Force Base (Exhibit 1)

DEVELOPMENT DESCRIPTION: Interim Predator Management Plan for the protection of the Western snowy plover (Exhibit 2)

EXECUTIVE SUMMARY

The Air Force's consistency determination is for an interim predator management plan. The goal of that plan is to reduce impacts to snowy plovers from predation. The plan also identifies, as a priority, the protection of ecosystem stability and integrity from predator management activities. The species of concern that the plan focuses on are crows, ravens, raptors, and coyotes. The primary predator management activities identified in the plan are: 1) beach clean up of trash and carrion in order to eliminate debris that would attract predators to the beach; and 2) lethal and non-lethal removal of predators that the Air Force has identified as an individual responsible for predation on plovers. The plan also includes continued research into coyote behavior and aversion and diversion feeding techniques to manage coyote predation. Finally, the plan provides for limited use of exclosures if the Air Force, in consultation with the U.S. Fish and Wildlife Service, determines that exclosures would be an effective management tool. Because the Interim Predator Management Plan provides for the protection of the threatened snowy plover, it is dependent on the sensitive resource. In addition, the plan provides for the protection of snowy plovers from direct impacts associated with the predator management activities and for the protection of ecological stability and integrity from the removal of predators. Therefore, the Interim Predator Management Plan will not significantly disturb plover habitat. In conclusion, the Interim Predator Management Plan

is consistent with the Environmentally Sensitive Habitat (ESHA) policy (Section 30240) of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS:

1. CD-023-01, consistency determination for interim beach management for snowy plover protection.

STAFF SUMMARY AND RECOMMENDATION:

I. Project Description. The Air Force submitted a consistency determination for an interim plan to manage predation of the nesting Western snowy plover, a federally listed threatened species. The Air Force describes its plan as follows:

> *The Plan addresses management of known avian and mammalian predators of snowy plovers, their eggs and young…. Management actions conducted under this Plan will emphasize selective control of individual problem predators, using non-lethal techniques wherever possible in the control of native predators. VAFB's predator management decisions must also include the assessment of these actions on the larger ecosystem, with the priority being that ecosystem stability and integrity are maintained.*

Specifically, the plan provides for the management of coyotes, crows, ravens, and raptors. The Air Force proposes to implement beach clean up and carrion removal to eliminate debris that attracts these predators to the beach. The Plan also includes both lethal and non-lethal removal of predators from the snowy plover nesting habitat. In its plan, the Air Force considered other non-lethal management techniques to deter plover predation, such as fences, exclosures, diversion feeding, and aversion feeding. The Air Force's plan provides for continued investigation into aversion and diversion feeding, and provides for limited use of exclosures if the circumstances warrant and the exclosure can be constructed without adversely affecting the plover. The Air Force rejected the other non-lethal management techniques as either infeasible or more damaging to the plovers than the predation.

The plan includes the following protocols to minimize the ecological effects from the lethal removal of predators:

1. No lethal removal of species that are listed by federal or state agencies as Threatened or Endangered (e.g. peregrine falcon).

2. For non-listed species, the Air Force will consider lethal removal of species that fall within the following categories:

    - Species that are known to be extremely difficult to trap;
    - Species for which non-lethal management techniques are determined to be infeasible or not available (through consultation with professionals and/or organizations such as the Santa Cruz Predatory Bird Research Group); and
    - Individual animals that are identified as being directly responsible for predation, when their removal is expected to result in reduced predation to snowy plover nests.

3. Lethal removal of top-level predators (i.e., coyote, raptors) will be considered within the following criteria:

    - Selective lethal removal will target individual problem animals, after failure to live-trap the animal (if applicable to the species in question), and after consultation with professionals.
    - Selective lethal removal will occur only if there is evidence of nest predation, there is evidence to indicate that further losses are probable due to observed foraging patterns in the area where the loss occurred, and there are other nests at risk of predation in that area.
    - Lethal removal will cease once it is confirmed that the identified predation problem in the area has ceased.

II. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has not incorporated the Santa Barbara County LCP into the CCMP.

III. Federal Agency's Consistency Determination.

The Air Force has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Staff Recommendation.

A. MOTION. I move that the Commission concur with consistency determination CD-046-01 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

B. STAFF RECOMMENDATION. Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

C. RESOLUTION TO CONCUR WITH CONSISTENCY DETERMINATION. The Commission hereby concurs with the consistency determination by the **U.S. Air Force**, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

V. Findings and Declarations:

The Commission finds and declares as follows:

A. Environmentally Sensitive Habitat Areas. Section 30240 of the Coastal Act provides that:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

1. Resource Dependent. The proposed project involves the management of predators in order to protect nesting habitat for the Western snowy plover, a federally listed threatened species. The plover nests on sandy beaches above the high tide line. The Service has designated all of the plover-nesting habitat on Vandenberg as critical habitat. Its nesting location makes the plover susceptible to many natural and human threats. Some of the natural threats include wind, waves, and predation. On Vandenberg, the primary human threat is recreational use of the beach. (This issue is fully discussed in the findings for CD-023-01 and is incorporated into this report by reference).

The purpose of the predator management plan at Vandenberg is to reduce snowy plover nest and chick loss from predation. Since the plover is a threatened species, its habitat is an ESHA. Section 30240 of the Coastal Act protects ESHA resources of the coastal zone. Specifically, that policy limits the type of activities that can occur within an ESHA to those that are dependent on the sensitive resources and avoid significant disruptions to the habitat. In this case, the proposed predator management plan is an allowable activity within an ESHA. The purpose of the plan is to reduce predation of the snowy plover, which is the sensitive resource that makes these beaches an ESHA. Obviously, a plan to protect sensitive resources is dependent on the resources it protects. Therefore, the Commission finds that the proposed predator management plan is dependent on the ESHA.

2. Significant Disruptions. The second requirement of the Coastal Act's ESHA policy is that the proposed activity avoid significant disruption to the sensitive resource. Although predation is responsible for many nest and chick losses, management of predators could result in adverse effects on plovers unless the plan is designed to maintain the complex predator/prey relationships and avoid other ecological effects. Despite the potential risks to the ESHA, predator management is necessary to protect this species. The bird nests on the ground in loose colonies and relies mostly on camouflage as its protection from predation. However, because of its nesting location and behavior, predation can result in significant nest losses. In addition, human activities and invasive plants have eliminated much of the plover's nesting habitat, and thus the remaining habitat is much more sensitive to predation. Finally, the plover population has declined in recent years (a full discussion of plover declines can be found in CD-023-01, and is incorporated by reference). Because of these concerns, predator management is necessary to protect the plover, reduce future declines in the population, and increase nesting success.

Predation on Vandenberg is particularly a problem. Past monitoring shows that predators are responsible for the loss of as much as 80% of the failed plover nests during a nesting season. The table below put predation in the context other causes for nest failure.

Table 1, Percent of failed nests on north or south beaches attributed to various causes.[1]

Year	Predation		Human		Abandoned		Surf or Wind		Unidentified Causes	
	North	South	North	South	North	South	North	South	North	South
1994	51	51	0	1	7	15	1	5	41	28
1995	40	32	0	0	12	36	9	2	39	30
1996	54	38	0	3	19	36	4	1	23	22
1997	65	64	0	0.05	5	5	2	3	28	28
1998	80	73	0	4	3	7	6	7	11	9
1999	14	53	0	8	43	17	29	11	14	11
2000	60	82	0	0	20	8	10	3	10	7

This table clearly shows that the percentage of failed nests attributed to predators is relatively high. Thus, predator management is necessary to protect the plover on Vandenberg. However, predator management must be implemented carefully, because if improperly done it could result in significant ecological effects and possibly adverse impacts to the plover. For example, if the population of the top-level terrestrial predator, the coyote, in this system is significantly reduced through predator management, it could result in increase predation by lower level predators (mesopredators), such as red foxes, raccoons, opossums, and skunks. The mesopredators may be better at nest predation then the coyotes and the snowy plover nests may be a more important food source than it is for the coyotes. (A snowy plover egg is relatively small and it is unlikely that a coyote comes to the beach just for these eggs.) In addition, predator/prey relationships are complex and too much interference with this relationship could have unintended ecological and biological effects. Therefore, it is best to move cautiously with any predator management program.

The goal of the Air Force's Interim Predator Management Plan is to reduce predation of the plover while minimizing ecological effects from predator management. Specifically, the plan states that:

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[1] Modified from Western Snowy Plovers on Vandenberg Air Force Base, 2000 final Report, Thomas E. Applegate and Sandra J. Schultz, January 2, 2001, p. 22.

> *Management actions conducted under this Plan will emphasize selective control of individual problem predators, using non-lethal techniques wherever possible in the control of native predators.* ***VAFB's predator management decisions must also include the assessment of these actions on the larger ecosystem, with the priority being that ecosystem stability and integrity are maintained*** (emphasis added).[2]

The primary predators that the interim plan focuses on are crows, ravens, and coyotes. These species account for most of the plover predation on the base. The Air Force proposes to use trash clean up and carrion removal as one of the tools to reduce predation by these animals. The Air Force proposes to conduct beach clean up weekly and continue to re-assess the situation to determine if more frequent beach clean up is necessary. The Air Force believes that human trash is one of the major attractants bringing predators to the beach. By removing this debris regularly, the Air Force hopes to reduce the number of predators attracted to the beach. Beach clean-up activities, however, can adversely affect plovers by increasing human activities on the beach. To minimize this impact, the interim plan requires that only trained individual will participate in the clean-up activities. In addition, the Air Force initially proposes to conduct the clean-up activities on a weekly basis, to limit the amount human activity on the beach. Decisions to increase the frequency of the clean-up activities will balance the need to keep the beaches free of human debris with potential impacts to the plovers from conducting the clean-up activities.

The Air Force's clean-up activities include removal of carrion from the beach. Carcasses of fish, marine mammals, and birds wash up on these beaches regularly. Crows, ravens, and coyotes are scavengers that rely on carrion as part of their food source. The Air Force believes that the dead animals that wash up on its beaches also attract predators. The interim plan provides for removal of carrion when identified by the plover monitors. However, the decision to remove carrion will take into consideration potential impacts on the plover from the removal activities. Carrion will not be removed if it is determined that the removal activities will adversely affect the plover.

a. <u>Crow and Raven Predation</u>. The Air Force does not expect the beach clean-up and carrion removal programs to completely eliminate predator activities on the beach. With respect to crows and ravens, the plan provides for lethal removal of the animals when it is feasible to implement it without adversely affecting plover nesting activities. The Air Force believes that predation by crows and ravens are limited to a few individuals that have learned that the beach provides foraging opportunities. Although the Air Force investigated several alternative methods for managing crows and ravens, it concluded that none of the non-lethal alternatives are effective means for controlling

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[2] Interim Predator Management Plan, p. 1.

crows and ravens. These birds are very intelligent and have been successful at avoiding capture and other methods to deter their predatory activities. Therefore, the Air Force intends to rely solely on lethal removal to manage crow and raven predation.

Although the Commission is concerned about the lethal removal of these birds, the question before the Commission is whether the activity will significantly disrupt the ESHA. Section 30107.5 of the Coastal Act defines environmentally sensitive areas as "*any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."* Crows and ravens are not rare species nor do they have an especially valuable role in nature. In addition, these birds usually thrive in areas of human disturbances. Therefore, the Commission finds that crows and ravens are not environmentally sensitive species. However, the purpose of the control of these birds is to protect the snowy plover, which is an environmentally sensitive species. Activities necessary for management of crows and ravens have the potential to affect plover habitat by increasing human activities in their habitat. The Air Force has taken this issue into consideration and provides for the following protocols to prevent impacts on the plover:

- In consultation with the plover monitors, the Air Force's Wildlife Biologist will make the determination to kill crows and ravens;
- Authorized personnel from USDA-Wildlife Services will conduct the lethal removal;
- The Air Force's Wildlife Biologist will direct USDA-Wildlife Services to limit lethal removal of crows to those observed to access snowy plover nesting beaches;
- Removal will take place from pre-determined locations to avoid disturbance to nesting snowy plovers; and
- If a particular situation requires USDA-Wildlife Services to enter nesting habitat to remove crows, this action will be carefully coordinated between snowy plover monitors, USDA-Wildlife Services, and the Air Force's biologist.

With these measures, it is unlikely that the lethal removal activities will significantly disturb plovers. Therefore, the Commission finds that the lethal removal of crows and ravens will not significantly disturb plover habitat.

b. <u>Coyote Predation</u>. The other main focus of the interim predator management plan is coyotes. Since coyotes are not a listed threatened or endangered species, they are not, in the absence of their ecological role, environmentally sensitive. However, coyotes are the top-level predator in this area and, as such, they have a unique role in the ecosystem. This role is especially important in managing snowy plover habitat. Although coyotes will consume plover eggs, because of the small size of the

eggs, it is unlikely that the coyotes actively search for plover eggs. The Air Force's biologist believes that coyotes consume the eggs because they happen to find a nest while on the beach searching for other food. Thus, the main effort in the management of coyote predation of snowy plovers is the elimination, or at least reduction, of other food sources on the beach. To that end, the Air Force proposes to clean beaches of human trash on a weekly basis and remove carrion as needed. The Air Force will monitor the trash clean-up program to determine if more frequent clean ups are necessary. The Air Force expects the clean-up programs to significantly reduce coyote activities on the beach. Recent monitoring of snowy plover nests would support this conclusion. From March to May of this year, the Air Force has closed all of Vandenberg's beaches to recreational use. Obviously, without recreational use on the beach, there is very little trash there. As a consequence, predation of snowy plover nests by coyotes is significantly lower that it has been at this time in previous years. In addition, the Air Force's coyote studies, which include radio telemetry, have shown that coyotes are spending less time on the beach. Thus, the Air Force expects beach clean-up and carrion removal to be an effective way to reduce coyote predation on the beach.

Coyote predation will also be managed through lethal removal. This management alternative is necessary to prevent individuals from decimating the plover nests. The Air Force considered several alternatives to coyote management, but concluded that these alternatives were more damaging to the plover, were not a feasible or effective tool, or require additional information before they can be implemented. Specifically, the Air Force considered the following alternatives: 1) Nest Exclosures; 2) Invisible Fencing/Electronic Collaring of Coyotes; 3) Exclusion Fencing; 4) Aversion Feeding; 5) Diversion Feeding; and 6) Relocation. The nest exclosures alternative is a management technique promoted by some representatives of environmental groups and other members of the public. However, in this case, nest exclosures may have significant adverse effects on nesting plovers and their effectiveness has been questioned in recent years. The Air Force determined that this alternative is not feasible for the following reasons:

> *Recent reports from Point Reyes Bird Observatory indicate that although exclosures have been successful at protecting nests from predators, some species of avian and mammalian predators (e.g. foxes, crows, ravens, owls) have keyed in on the presence of birds in these exclosures. If they are unsuccessful in entering the exclosure, predators often remain near the exclosure, harassing the adult and ultimately causing the abandonment of the nest and/or the predation of the adult when entering or exiting the exclosure (G. Page, pers. comm.).*
>
> *Snowy plovers nest along 12.5 miles of beaches on VAFB. Erecting exclosures would require access to beach areas with an all-terrain vehicle to carry the materials necessary for each exclosure. During peak nesting*

> *season, this would result in daily (and occasionally more frequent) disturbances to nesting birds by a motorized vehicle. In addition, the weather climate at VAFB is such that daily maintenance of the exclosures would be required to prevent their burial by sand. Placement of exclosures would be unfeasible in most beach sectors due to the distances between access points and locations of exclosures, the need to maintain them on a daily basis to prevent burial by sand, and the consequent disturbance to the plover and its habitat as a result of these activities.*[3]

For these reasons, Air Force believes that nest exclosures are not appropriate in most situations. However, the Air Force has acquired nest exclosure materials and will use exclosures if the circumstances warrant it and the plover monitors, Air Force biologists, and the Service agree that exclosures are appropriate.

In addition, the Air Force determined that the invisible fencing alternative is not feasible. This management method is similar to the electronic collars used by dog owners to maintain dogs within a non-fenced area. These collars emit a small electrical shock when the animal crosses into the forbidden area. The Air Force evaluated these electronic collars for coyotes as a potential technique to keep them away from the beaches during the snowy plover breeding season. However, Air Force concluded that it would not be feasible to implement this alternative:

> *The placement of an in-ground line along the entire 12.5 miles of beach sector is likely unfeasible due to geography and accessibility.*
>
> *Research on the use of electronic collars for the protection of San Clemente loggerhead shrike from island fox predation indicates that although this technique is successful in protecting individual nesting tree sites, it fails when applied to a larger area because animals will break through the invisible electric line to maintain and patrol their home ranges.*
>
> *Excluding resident coyotes from such large areas could result in some of the same adverse ecological effects that are of concern with large-scale lethal coyote removal, such as increased predation by mesopredators and immigration by uncollared/uncontrolled coyotes.*[4]

The Air Force also considered the use of fences to exclude predators from various portions of the beaches. The Air Force considered both electric and standard fences

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[3] Interim Predator Management Plan, pp. 6-7.
[4] Interim Predator Management Plan, p. 7.

and considered their use both to isolate specific areas of beach with fences perpendicular to the shoreline and block known coyote paths to the beach. However, the Air Force concluded that the use of fencing was not feasible:

> *The topography of the coastline and beaches on VAFB would require that fencing extend into the water perpendicular to the coastline. This eliminates electric fencing as an option, and would not be feasible for standard non-electric fencing as the tides would be constantly damaging it.*
>
> *The routine inspection and maintenance required to ensure fence integrity would not be possible due to the extent of the coastline.*
>
> *Predators finding their way around, under or over these extensive fences could become trapped inside the area where we want to exclude them, posing additional risk to snowy plovers. In addition, standard non-electric fencing would not be effective in preventing some predators (i.e., raccoons) from entering the area.*[5]

Aversion feeding is another predator management alternative that the Air Force considered. Although the Air Force believes that this alternative may be effective and feasible, the Air Force cannot implement it at this time. Aversion feeding involves the application of a noxious chemical compound to eggs, to train potential predators that the ingestion of such items is undesirable. The problem with this alternative is the chemical that is most effective in deterring predators is potentially toxic to eggs.[6] Thus, this chemical would be more damaging to plover reproduction then the predation. However, the Air Force intends to continue researching this alternative and if it finds a safe chemical to use for aversion feeding, it will implement it in consultation with the Service.

Another technique that manages predation through the use of food is diversion feeding. This management technique aims to train animals to use specific areas for foraging and reduce their presence in other areas of their home range. This training is accomplished through the strategic placement of carcasses within their home range. The Air Force believes that this technique can be used to reduce the presence of coyotes on the beach. However, the Service is concerned that placement of carcasses would increase available food supply and might result in increased reproduction of both coyotes and other predators that forage on the carcass. In response to these concerns, the Air Force agreed to continue its research into diversion feeding and coyote population before it decides to implement diversion feeding. The Air Force believes that this technique is viable, likely to succeed, and, if done right, would not affect predator populations in the

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[5] Interim Predator Management Plan, p. 8.
[6] Interim Predator Management Plan, p. 8.

area. Therefore, the Air Force intends to continue to gather data and information that will support implementation of the diversion-feeding plan.

The final predator management alternative considered by the Air Force is to trap and relocate coyotes. However, the Air Force concluded that such a program would not be a practical alternative because it might adversely affect the relocated animal, could have significant ecological effects, and might result in a mesopredator release effect. The Air Force describes its considerations of this alternative as follows:

> *Relocation is a practicable and feasible alternative for some wildlife species, but not practicable or ecologically sound for others. Ecologically, relocation has the same effect as lethal removal of the predator from the ecosystem. Relocation efforts, like lethal control, must therefore be limited, highly selective, and include evaluation of potential ecological effects. In addition, relocated animals may compete with resident animals at the relocation site, with potential consequences to the stability of predator populations there. Some species that are territorial, such as coyotes, would also be expected to have poor survival rates, as they would likely be excluded from the new habitat by the resident coyotes.*[7]

Although the Air Force will continue to investigate aversion and diversion feeding methods to manage coyote predation, the primary approach that the Interim Predator Management Plan proposes is to minimize trash and carrion, which attract coyotes to the beach, and lethally remove a coyote if it becomes a significant source predation of plover nests. The Air Force is cognizant of potential ecological effects from removal of the top-level predator in this ecosystem. The Air Force is especially concerned about adverse effects from an aggressive coyote removal program. Such a program could result in increased predation from mesopredators, increased coyote reproduction, or immigration of new coyotes into the area. The Interim Predator Management Plan includes the following measures to minimize ecological effects from lethal removal:

1. The Air Force will not lethally remove species that are listed by federal or state agencies as Threatened or Endangered (e.g. peregrine falcon).

2. The Air Force will limit lethal removal to the following categories:

    - Species that are known to be extremely difficult to trap;

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[7] Interim Predator Management Plan, pp. 8-9.

- Species for which non-lethal management techniques are determined to be infeasible or not available (through consultation with professionals and/or organizations such as the Santa Cruz Predatory Bird Research Group); and

- Individual animals that are identified as being directly responsible for predation, and when their removal is expected to result in reduced predation to snowy plover nests.

3. Lethal removal of top-level predators (i.e., coyote and raptors) will be considered within the following criteria:

    - Selective lethal removal will target individual problem animals, after failure to live-trap the animal (if applicable to the species in question), and after consultation with professionals;

    - Selective lethal removal will occur only when evidence indicates a nest or nests has been predated by an animal, there is evidence to indicate that further losses are probable due to observed foraging patterns in the area where the loss occurred, and there are other nests at risk of predation in that area; and

    - Lethal removal will cease once it is confirmed that the identified predation problem in the area has ceased.

Thus, the Interim Management plan includes measures to minimize ecological effects from predator management, including selective lethal removal.

In conclusion, the plan's provision for selective lethal removal is intended to protect plovers from individuals whose predation is causing significant habitat losses and includes protocols to minimize ecological effects from the activity. Based on these protocols and commitments, it is clear that the purpose of the selective lethal removal is to address specific animals that are causing significant impacts to plover nests and is not to prevent all predation of the plovers by removing the predators from the system. Therefore, the Commission finds that the proposed selective removal of coyotes will not significantly disrupt the ESHA.

c. <u>Raptors and Other Predatory Birds</u>. Raptors are another class of predators that are included in the predator management plan. The Air Force's past monitoring of snowy plovers on Vandenberg has not identified raptors and other predatory birds (other than crows and ravens) to be responsible for a significant amount of predation. However, the Air Force has attributed some chick and nest losses to raptors and shrikes. Therefore, the Interim Predator Management Plan provides for the management of predation by these birds. The plan emphasizes measures to capture and relocate responsible individuals. The plan also includes selective lethal removal of these birds if all other non-lethal methods are ineffective. Selective lethal removal of

raptors and shrikes will used only as a final control method when all other non-lethal alternatives have failed to eliminate the problem. In addition, the Air Force will implement selective lethal removal after consultation with the Santa Cruz Predatory Bird Research Group, which participates in the management, capture, and relocation of predatory birds on Vandenberg. The Air Force describes its approach to managing predatory birds as follows:

> *Upon determining that an individual predator poses a threat to snowy plovers on VAFB beaches, an effort will be undertaken to trap, band, and relocate the predator as soon as possible.*
>
> - *The determination will be made by the VAFB Wildlife Biologist upon consultation with the SCPBRG and plover monitors.*
> - *Knowledge of the avian predator's habits will determine the trapping technique to employ.*
> - *The decision to remove a predator must take into account the potential disturbance of the removal activity on nesting plovers relative to the potential threat of the predator. Trapping will be conducted in coordination with plover monitors and the VAFB Wildlife Biologist to avoid disturbance to plovers to the maximum extent practicable. As described elsewhere in this Plan, early identification of "plover-safe" trapping locations will minimize response time once a threat has been identified.*
> - *Trapped birds will be held in a licensed and permitted rehabilitation/holding facility until they can be released back into the wild.*
> - *Relocated birds will be released in an area with suitable habitat at a distance from which they would not be expected to return. The distance will be determined through consultation with the SCPBRG.*
>
> *Lethal control will only be used when trapping attempts have failed, when there is a continued and immediate direct threat to snowy plovers, their nests or chicks, and when, in consultation with the SCPBRG, VAFB determines that additional live-trapping efforts are not likely to be successful.*
>
> - *The decision to lethally remove an avian predator will be determined on a case-by-case basis, after taking into consideration the degree of threat, breeding phase of the snowy plovers, feasibility (or lack*

thereof) of live-trapping options, legal status and rarity of the predator species, and professional knowledge of the situation and species involved. Peregrine falcons, although federally delisted, are still state-listed as Endangered. Only live-capture by qualified and permitted biologists from SCPBRG will be utilized to control peregrine falcons; no lethal removal of this species will occur.

- *Lethal removal will only be conducted by authorized USDA-Wildlife Services personnel under the direction of the VAFB Wildlife Biologist.*
- *Lethal removal will only be done when there are no people present in the area, to avoid any human safety hazard.*

All avian predator removal actions will be implemented by authorized personnel from SCPBRG or USDA-Wildlife Services, under the direction of the VAFB Wildlife Biologist.[8]

In addition, past monitoring data indicates that raptor predation of plovers is relatively low. Since 1994, the Air Force has identified only one nest lost to raptors.[9] Thus, it is likely that the Air Force's raptor management activities will be relatively low. However, the Commission is concerned about any lethal removal of raptors. Although the removal activities are not likely to significantly disrupt the plover habitat, which is an ESHA for Coastal Act purposes, some raptors are sensitive species and the Commission considers their habit to be an ESHA. Obviously, the lethal removal raptors will disrupt that ESHA. In this case, the Commission is placed in a dilemma of protecting one ESHA by adversely affecting another ESHA. Although the Commission is very concerned about the impacts to the raptors, protection of the snowy plover is a high priority because it a federally listed species whose population is declining. However, the Air Force proposes to only lethally remove raptors that are not state or federally listed threatened or endangered species.

In addition, it is impracticable to protect plovers from raptor predation without providing for lethal removal. If an individual bird has learn to hunt plovers or their nests and cannot be captured, lethal removal may be the only method for protecting the plovers. In conclusion, because the plover is a threatened species, the Commission concludes that the protection of the plover is the paramount concern and that the lethal removal of raptors under the conditions described by the Air Force is consistent with the ESHA policy of the Coastal Act.

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[8] Interim Predator Management Plan, pp. 11-12
[9] Interim Predator Management Plan, p. 19.

3. <u>Conclusion</u>. In conclusion, the Commission finds that the purpose of the predator management plan is to protect snowy plover habitat and, therefore, is dependent on the sensitive resource of the ESHA. In addition, the Commission finds that the management of predators, including crows, ravens, coyotes, and raptors described in the Air Force's Interim Predator Management Plan will not significantly disrupt the ESHA. Therefore, the Commission finds that the proposed plan is consistent with the ESHA policy of the CCMP.